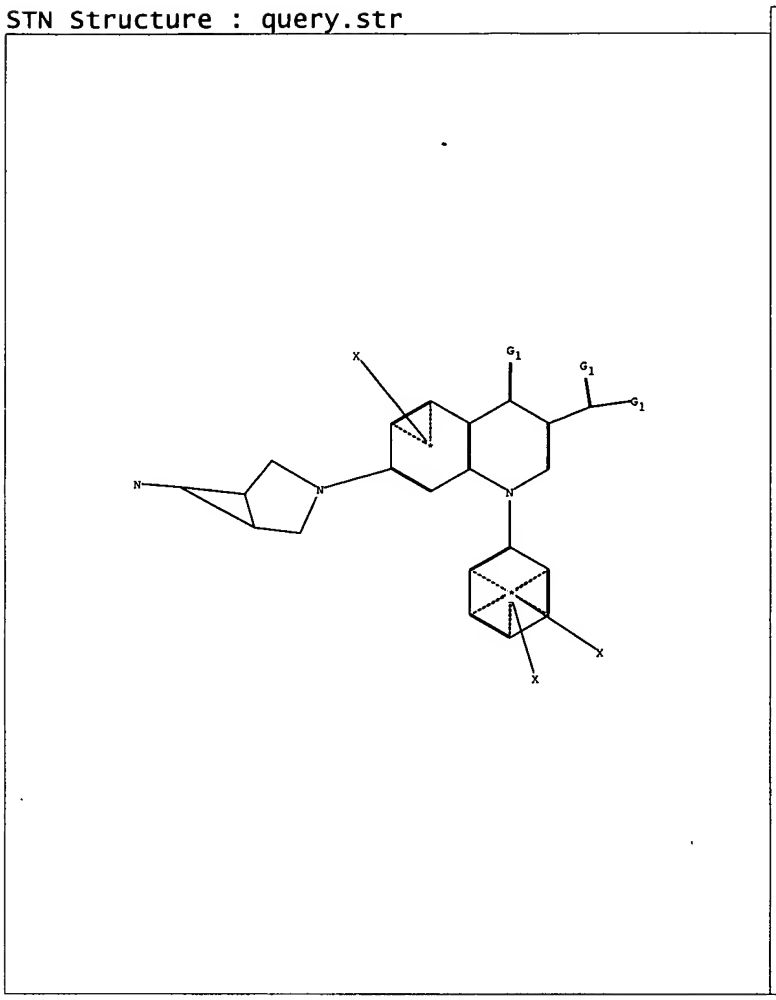
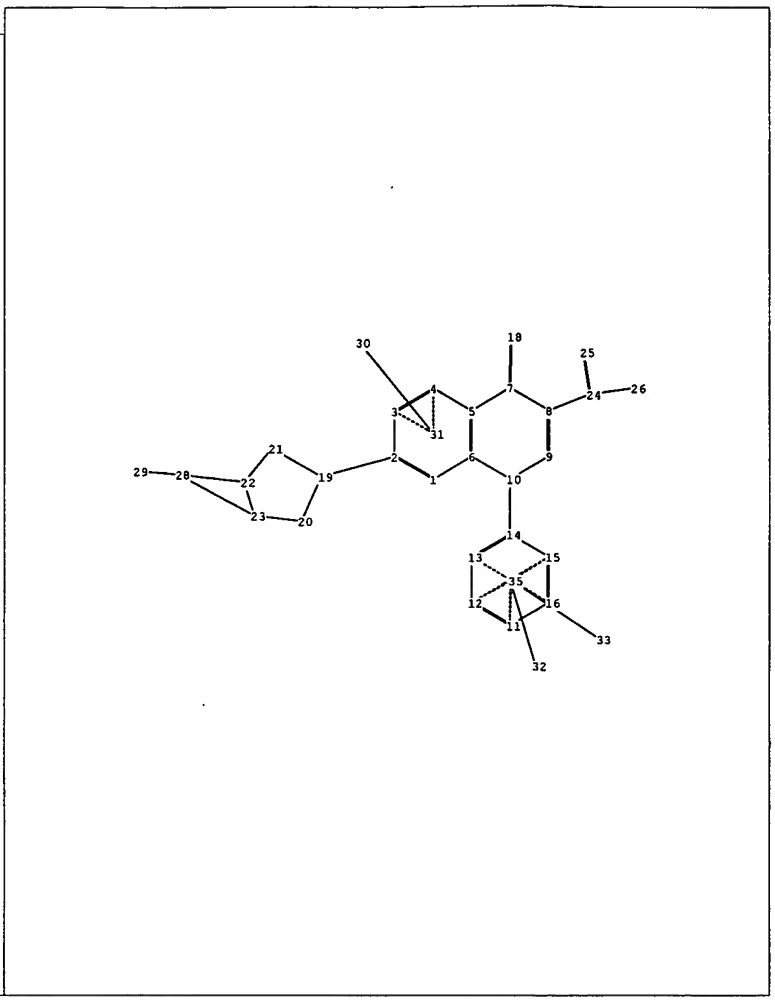
STN Structure : query.str





chain nodes :
18 24 25 26 29 30 32 33
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 19 20 21 22 23 28
chain bonds :
2-19 7-18 8-24 10-14 24-25 24-26 28-29
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10 11-12 11-16 12-13 13-14
14-15 15-16 19-20 19-21 20-23 21-22 22-23 22-28 23-28
exact/norm bonds :
2-19 5-7 6-10 7-8 7-18 8-9 9-10 10-14 19-20 19-21 20-23 21-22 22-23 22-28
23-28 24-25 24-26 28-29
exact bonds :
8-24
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 11-12 11-16 12-13 13-14 14-15 15-16
isolated ring systems :
containing 1 : 11 : 19 :

G1:O,S

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 18:CLASS 19:Atom 20:Atom 21:Atom 22:Atom
23:Atom 24:CLASS 25:CLASS 26:CLASS 28:Atom 29:CLASS 30:CLASS 31:CLASS 32:CLASS
33:CLASS 34:CLASS 35:CLASS

```
=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'REGISTRY' ENTERED AT 17:46:44 ON 26 JUL 2002
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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STRUCTURE FILE UPDATES:   25 JUL 2002  HIGHEST RN 440319-99-3
DICTIONARY FILE UPDATES:  25 JUL 2002  HIGHEST RN 440319-99-3

TSCA INFORMATION NOW CURRENT THROUGH January 7, 2002

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

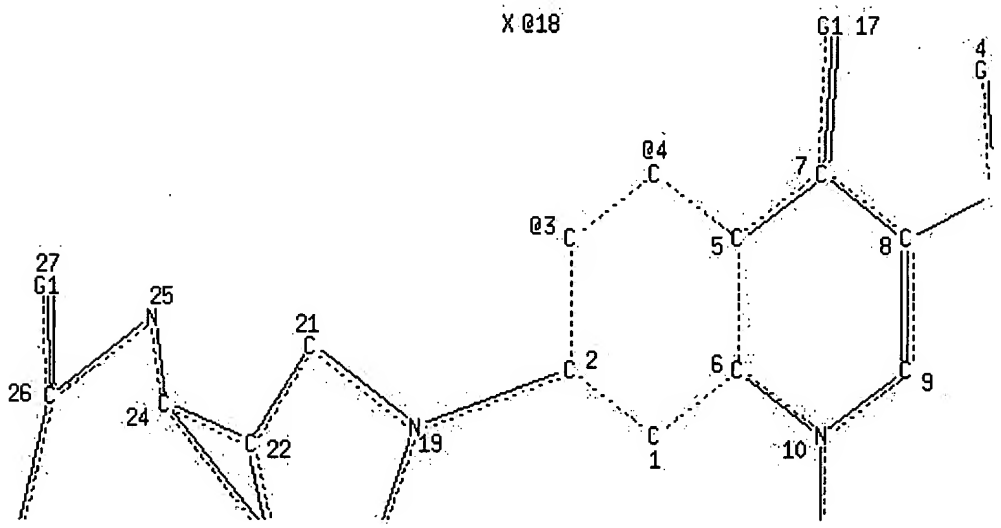
Crossover limits have been increased.  See HELP CROSSOVER for details.

Calculated physical property data is now available.  See HELP PROPERTIES
for more information.  See STNote 27, Searching Properties in the CAS
Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

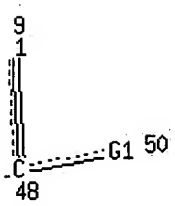
=>
L1      STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1                STR
 Ak 53

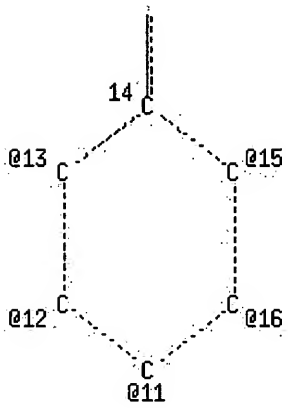

 0 51 S 52
```



Page 1-A



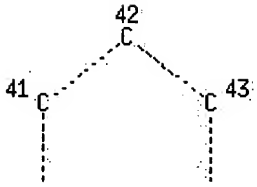
Page 1-B



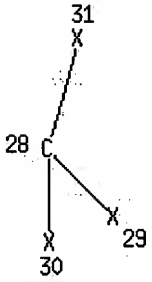
X @46

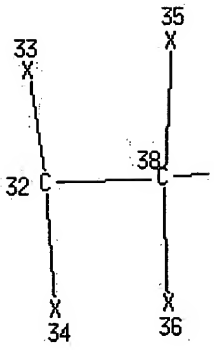
X @47

Page 2-A

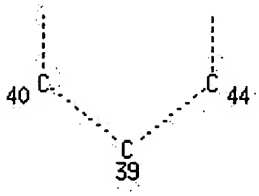


Page 2-B





Page 3-A



X 37

Page 3-B
VAR G1=51/52
VAR G2=53/28/32/42
VPA 18-3/4 S
VPA 46-11/12/13/15/16 S

```
VPA 47-11/12/13/15/16 S
NODE ATTRIBUTES:
NSPEC   IS R      AT   1
NSPEC   IS R      AT   2
NSPEC   IS R      AT   3
NSPEC   IS R      AT   4
NSPEC   IS R      AT   5
NSPEC   IS R      AT   6
NSPEC   IS R      AT   7
NSPEC   IS R      AT   8
NSPEC   IS R      AT   9
NSPEC   IS R      AT  10
NSPEC   IS R      AT  11
NSPEC   IS R      AT  12
NSPEC   IS R      AT  13
NSPEC   IS R      AT  14
NSPEC   IS R      AT  15
NSPEC   IS R      AT  16
NSPEC   IS C      AT  17
NSPEC   IS C      AT  18
NSPEC   IS R      AT  19
NSPEC   IS R      AT  20
NSPEC   IS R      AT  21
NSPEC   IS R      AT  22
NSPEC   IS R      AT  23
NSPEC   IS R      AT  24
NSPEC   IS C      AT  25
NSPEC   IS C      AT  26
NSPEC   IS C      AT  27
NSPEC   IS C      AT  28
NSPEC   IS C      AT  29
NSPEC   IS C      AT  30
NSPEC   IS C      AT  31
NSPEC   IS C      AT  32
NSPEC   IS C      AT  33
NSPEC   IS C      AT  34
NSPEC   IS C      AT  35
NSPEC   IS C      AT  36
NSPEC   IS C      AT  37
NSPEC   IS C      AT  38
NSPEC   IS R      AT  39
NSPEC   IS R      AT  40
NSPEC   IS R      AT  41
NSPEC   IS R      AT  42
NSPEC   IS R      AT  43
NSPEC   IS R      AT  44
NSPEC   IS C      AT  45
NSPEC   IS C      AT  46
NSPEC   IS C      AT  47
NSPEC   IS C      AT  48
NSPEC   IS C      AT  49
NSPEC   IS C      AT  50
DEFAULT MLEVEL IS ATOM
MLEVEL  IS CLASS  AT  18 25 26 28 29 30 31 32 33 34 35 36 37 38 46 47 48
          51 52 53
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC  11  10  19
NUMBER OF NODES IS  53

STEREO ATTRIBUTES: NONE


=> s l1
```

```
SAMPLE SEARCH INITIATED 17:54:41 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      0 TO ITERATE

100.0% PROCESSED       0 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:            0 TO        0
PROJECTED ANSWERS:               0 TO        0

L2            0 SEA SSS SAM L1

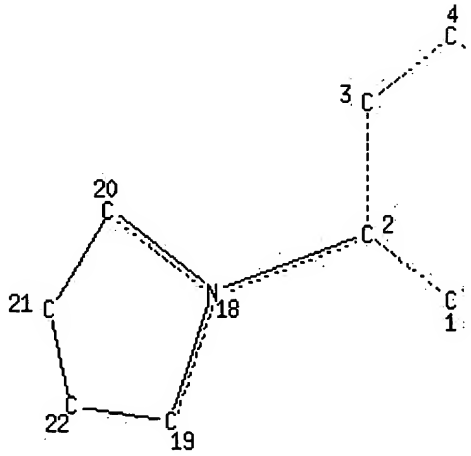
=> s l1 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 139.90 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 17:54:51 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -      1 TO ITERATE

100.0% PROCESSED       1 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.03

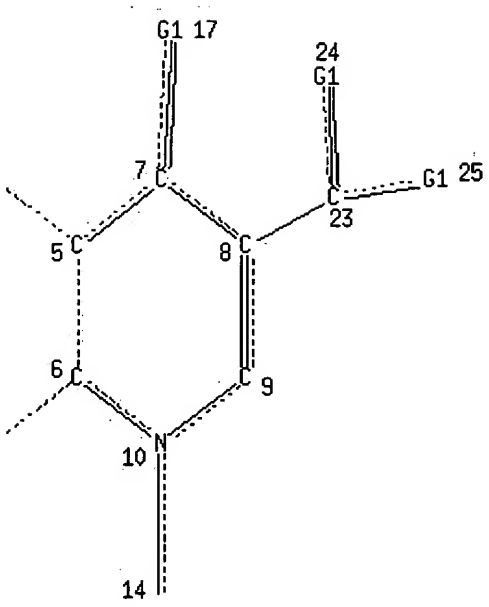
L3            0 SEA SSS FUL L1

=>
L4      STRUCTURE UPLOADED

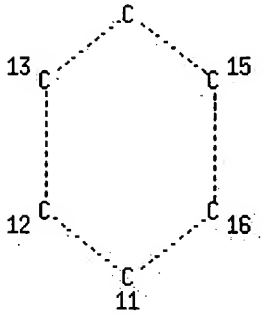
=> d l4
L4 HAS NO ANSWERS
L4              STR
 0 26 S 27
```



Page 1-A



Page 1-B



Page 2-B

VAR G1=26/27

NODE ATTRIBUTES:

NSPEC IS R AT 1
NSPEC IS R AT 2
NSPEC IS R AT 3
NSPEC IS R AT 4
NSPEC IS R AT 5
NSPEC IS R AT 6
NSPEC IS R AT 7
NSPEC IS R AT 8
NSPEC IS R AT 9
NSPEC IS R AT 10
NSPEC IS R AT 11
NSPEC IS R AT 12
NSPEC IS R AT 13
NSPEC IS R AT 14
NSPEC IS R AT 15
NSPEC IS R AT 16
NSPEC IS C AT 17
NSPEC IS R AT 18
NSPEC IS R AT 19
NSPEC IS R AT 20
NSPEC IS R AT 21
NSPEC IS R AT 22
NSPEC IS C AT 23
NSPEC IS C AT 24
NSPEC IS C AT 25
DEFAULT MLEVEL IS ATOM
MLEVEL IS CLASS AT 23 26 27

```
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS  27

STEREO ATTRIBUTES: NONE


=> d his

     (FILE 'HOME' ENTERED AT 17:46:37 ON 26 JUL 2002)

     FILE 'REGISTRY' ENTERED AT 17:46:44 ON 26 JUL 2002
L1             STRUCTURE UPLOADED
L2           0 S L1
L3           0 S L1 FULL
L4             STRUCTURE UPLOADED

=> s l4
SAMPLE SEARCH INITIATED 17:57:08 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -    454 TO ITERATE

100.0% PROCESSED     454 ITERATIONS                              8 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          7802 TO    10358
PROJECTED ANSWERS:                8 TO      329

L5            8 SEA SSS SAM L4

=> s l4 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 139.90 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 17:57:14 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -   9320 TO ITERATE

100.0% PROCESSED    9320 ITERATIONS                           262 ANSWERS
SEARCH TIME: 00.00.02

L6          262 SEA SSS FUL L4

=> file hcaplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                             286.64     286.85

FILE 'HCAPLUS' ENTERED AT 17:57:21 ON 26 JUL 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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```

FILE COVERS 1907 - 26 Jul 2002 VOL 137 ISS 5
FILE LAST UPDATED: 25 Jul 2002 (20020725/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

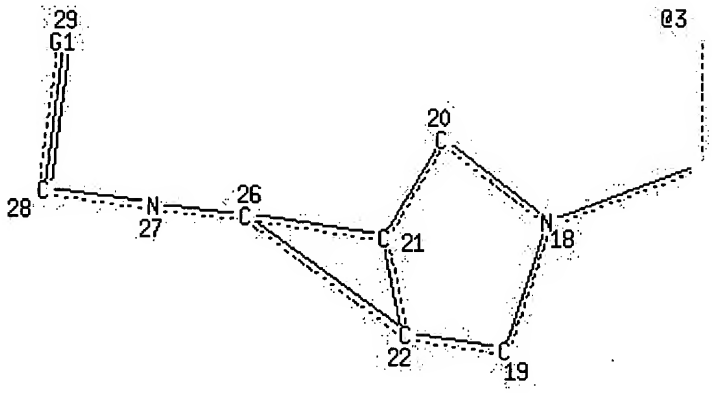
CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> **s 16**
L7 79 L6

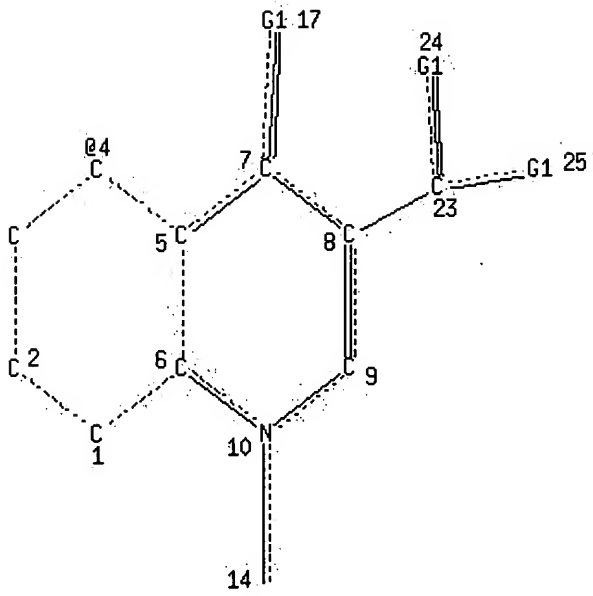
=>
L8 STRUCTURE UPLOADED

=> **d 18**
L8 HAS NO ANSWERS
L8 STR
0 33 S 34

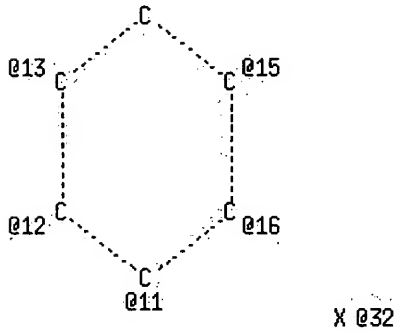
X @30



Page 1-A



Page 1-B



X @32

X @31

Page 2-B
VAR G1=33/34
VPA 30-3/4 S
VPA 31-11/12/13/15/16 S
VPA 32-11/12/13/15/16 S
NODE ATTRIBUTES:

NSPEC	IS R	AT	1
NSPEC	IS R	AT	2
NSPEC	IS R	AT	3
NSPEC	IS R	AT	4
NSPEC	IS R	AT	5
NSPEC	IS R	AT	6
NSPEC	IS R	AT	7
NSPEC	IS R	AT	8
NSPEC	IS R	AT	9
NSPEC	IS R	AT	10
NSPEC	IS R	AT	11
NSPEC	IS R	AT	12
NSPEC	IS R	AT	13
NSPEC	IS R	AT	14
NSPEC	IS R	AT	15
NSPEC	IS R	AT	16
NSPEC	IS C	AT	17
NSPEC	IS R	AT	18
NSPEC	IS R	AT	19
NSPEC	IS R	AT	20
NSPEC	IS R	AT	21

```
NSPEC   IS R      AT  22
NSPEC   IS C      AT  23
NSPEC   IS C      AT  24
NSPEC   IS C      AT  25
NSPEC   IS R      AT  26
NSPEC   IS C      AT  27
NSPEC   IS C      AT  28
NSPEC   IS C      AT  29
NSPEC   IS C      AT  30
NSPEC   IS C      AT  31
NSPEC   IS C      AT  32
DEFAULT MLEVEL IS ATOM
MLEVEL  IS CLASS  AT  23 27 28 30 31 32 33 34
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS  34

STEREO ATTRIBUTES: NONE


=> d his

     (FILE 'HOME' ENTERED AT 17:46:37 ON 26 JUL 2002)

     FILE 'REGISTRY' ENTERED AT 17:46:44 ON 26 JUL 2002
L1             STRUCTURE UPLOADED
L2           0 S L1
L3           0 S L1 FULL
L4             STRUCTURE UPLOADED
L5           8 S L4
L6         262 S L4 FULL

     FILE 'HCAPLUS' ENTERED AT 17:57:21 ON 26 JUL 2002
L7          79 S L6
L8             STRUCTURE UPLOADED

=> s l8
 REG1stRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.




SAMPLE SEARCH INITIATED 18:00:26 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      2 TO ITERATE

100.0% PROCESSED       2 ITERATIONS                              0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:            2 TO      124
PROJECTED ANSWERS:               0 TO        0

L9            0 SEA SSS SAM L8



L10          0 L9

=> file reg
```

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.14	300.07

FILE 'REGISTRY' ENTERED AT 18:00:29 ON 26 JUL 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

STRUCTURE FILE UPDATES: 25 JUL 2002 HIGHEST RN 440319-99-3
DICTIONARY FILE UPDATES: 25 JUL 2002 HIGHEST RN 440319-99-3

TSCA INFORMATION NOW CURRENT THROUGH January 7, 2002

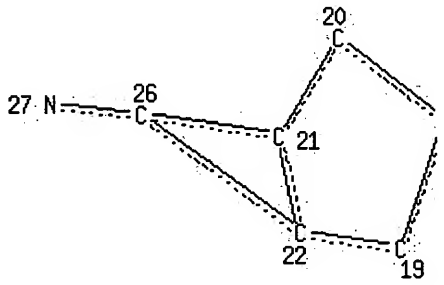
Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

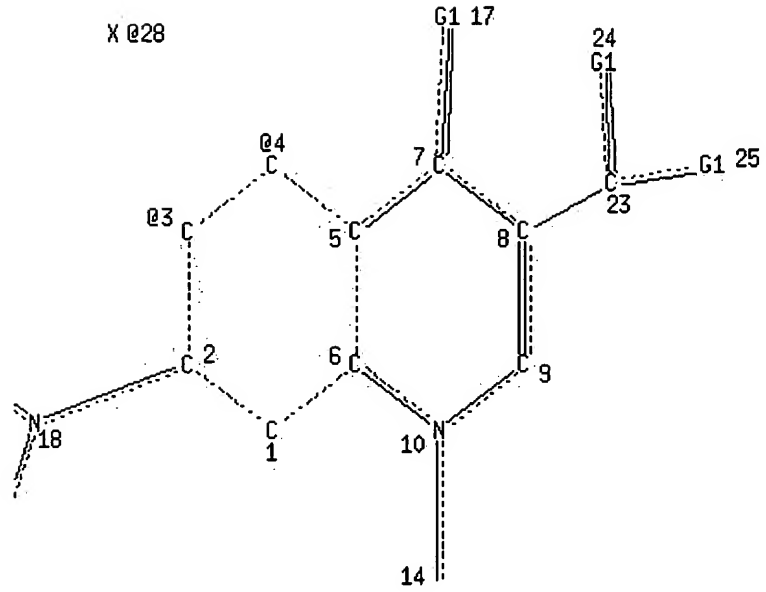
Calculated physical property data is now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=>
L11 STRUCTURE UPLOADED

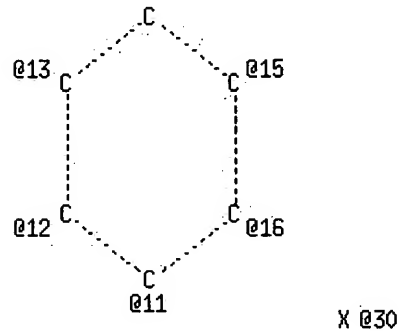
=> d l11
L11 HAS NO ANSWERS
L11 STR
0 31 S 32



Page 1-A



Page 1-B



X @30

X @29

Page 2-B
VAR G1=31/32
VPA 28-3/4 S
VPA 29-11/12/13/15/16 S
VPA 30-11/12/13/15/16 S
NODE ATTRIBUTES:

NSPEC	IS R	AT	1
NSPEC	IS R	AT	2
NSPEC	IS R	AT	3
NSPEC	IS R	AT	4
NSPEC	IS R	AT	5
NSPEC	IS R	AT	6
NSPEC	IS R	AT	7
NSPEC	IS R	AT	8
NSPEC	IS R	AT	9
NSPEC	IS R	AT	10
NSPEC	IS R	AT	11
NSPEC	IS R	AT	12
NSPEC	IS R	AT	13
NSPEC	IS R	AT	14
NSPEC	IS R	AT	15
NSPEC	IS R	AT	16
NSPEC	IS C	AT	17
NSPEC	IS R	AT	18
NSPEC	IS R	AT	19
NSPEC	IS R	AT	20
NSPEC	IS R	AT	21

```
NSPEC   IS R      AT  22
NSPEC   IS C      AT  23
NSPEC   IS C      AT  24
NSPEC   IS C      AT  25
NSPEC   IS R      AT  26
NSPEC   IS C      AT  27
NSPEC   IS C      AT  28
NSPEC   IS C      AT  29
NSPEC   IS C      AT  30
DEFAULT MLEVEL IS ATOM
MLEVEL  IS CLASS  AT  23 27 28 29 30 31 32
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS  32

STEREO ATTRIBUTES: NONE


=> s l11
SAMPLE SEARCH INITIATED 18:01:28 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      5 TO ITERATE

100.0% PROCESSED       5 ITERATIONS                              0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:            5 TO      234
PROJECTED ANSWERS:               0 TO        0

L12           0 SEA SSS SAM L11

=> s l11 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 139.90 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 18:01:36 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -     81 TO ITERATE

100.0% PROCESSED      81 ITERATIONS                              6 ANSWERS
SEARCH TIME: 00.00.01

L13           6 SEA SSS FUL L11

=> file hcaplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                             140.66     440.73

FILE 'HCAPLUS' ENTERED AT 18:01:40 ON 26 JUL 2002
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FILE COVERS 1907 - 26 Jul 2002 VOL 137 ISS 5
FILE LAST UPDATED: 25 Jul 2002 (20020725/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> **s l13**
L14 5 L13

=> **s l14 and chiu, c?/au**
1049 CHIU, C?/AU
L15 0 L14 AND CHIU, C?/AU

=> **s l14 and wint, l?/au**
9 WINT, L?/AU
L16 0 L14 AND WINT, L?/AU

=> **d l14, ibib abs fhitstr, 1-5**

L14 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2002 ACS

Full Text | Citing References

ACCESSION NUMBER: 2002:171686 HCAPLUS
DOCUMENT NUMBER: 136:232324
TITLE: Preparation of antiviral and antimicrobial substituted guanidines or biguanidines
INVENTOR(S): Shetty, B. Vithal
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 148 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002017916	A1	20020307	WO 2001-US26150	20010822

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-649014 A1 20000828
OTHER SOURCE(S): MARPAT 136:232324
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Guanidine and biguanidine derivs. of formulas I-V [X = B or CRB; R = H or alkyl and B = (un)substituted alkyl, alkyl-X1-alkyl where X1 = O, S,

sulfoxide, tris(2-aminoethyl)amine, N optionally substituted with NHC(NH)NHC(NH)A, (un)substituted heterocycle, (un)substituted-aryl, -cyclohexane, etc.; A = independently H, CN, amino, quinolone, azaquinolone, morpholine, (un)substituted piperazine, (un)substituted aminoadamantane, etc.; Z = C(NH)NHC(NH)A; X2 = (un)substituted-alkyl, -aryl, -heterocycle, or bond; X3 = (CH2)n where n = 1-5; Y1 and Y2 independently = (un)substituted-alkyl, -aryl, -heterocycle, or bond; T = H, alkyl, (un)substituted-aryl, -heterocycle; m = 0-12; p = 0-8] are prepd. and disclosed as anti-viral and anti-bacterial agents. Thus, VI was prepd. via substitution of 7-chloro-6-fluoro-1,4-dihydro-4-oxo-7-(1-piperazinyl)-quinoline carboxylic acid with piperazine and subsequent addn. to hexamethylene bis(cyanoguanidine). VI was found active against HIV at concns. greater than 3.2μg/mL in peripheral blood mononuclear cell assay. Also disclosed are pharmaceutical compns. contg. I-V as an active ingredient, and anti-viral and anti-bacterial methods utilizing such compds.

IT **402930-23-8P**

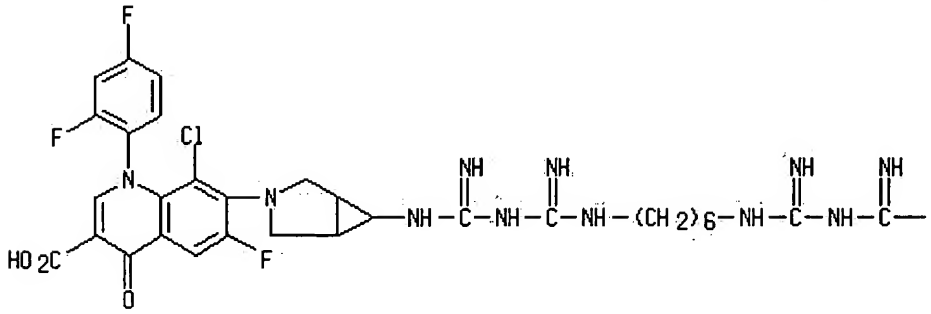
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(target compd.; prepn. of antiviral and antimicrobial substituted guanidine or biguanidines)

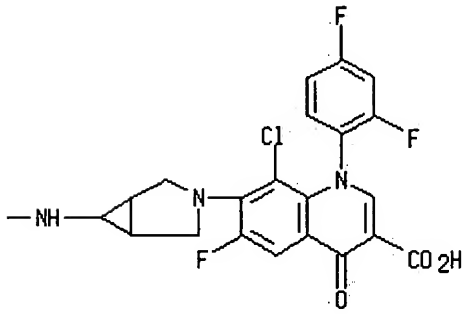
RN 402930-23-8 HCAPLUS

CN 3-Quinolinecarboxylic acid, 7,7'-[(1,3,12,14-tetraimino-2,4,11,13-tetraazatetradecane-1,14-diyl)bis(imino-3-azabicyclo[3.1.0]hexane-6,3-diyl)]bis[8-chloro-1-(2,4-difluorophenyl)-6-fluoro-1,4-dihydro-4-oxo- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2002 ACS

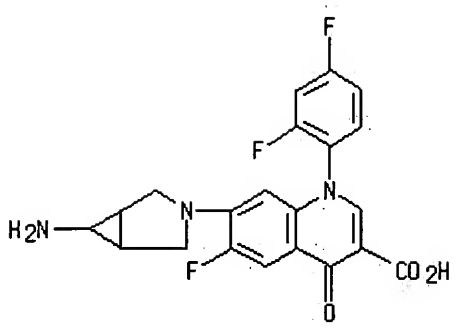
Full Text | Citing References

ACCESSION NUMBER: 2000:688957 HCAPLUS
DOCUMENT NUMBER: 134:2516
TITLE: Anti-Toxoplasma activities of 24 quinolones and fluoroquinolones in vitro: prediction of activity by molecular topology and virtual computational techniques
AUTHOR(S): Gozalbes, Rafael; Brun-Pascaud, Monique; Garcia-Domenech, Ramon; Galvez, Jorge; Girard, Pierre-Marie; Doucet, Jean-Pierre; Derouin, Francis
CORPORATE SOURCE: Laboratoire de Parasitologie-Mycologie, Faculte de Medecine Lariboisiere Saint-Louis, Universite Paris 7, Institut de Topologie et de Dynamique des Systemes (ITODYS), Paris, 75006, Fr.
SOURCE: Antimicrobial Agents and Chemotherapy (2000), 44(10), 2771-2776
CODEN: AMACCQ; ISSN: 0066-4804
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The apicoplast, a plastid-like organelle of Toxoplasma gondii, is thought to be a unique drug target for quinolones. In this study, we assessed the in vitro activity of quinolones against T. gondii and developed new quant. structure-activity relationship models able to predict this activity. The anti-Toxoplasma activities of 24 quinolones were examd. by means of linear discriminant anal. (LDA) using topol. indexes as structural descriptors. In parallel, in vitro 50% inhibitory concns. (IC50s) were detd. in tissue culture. A multilinear regression (MLR) anal. was then performed to establish a model capable of classifying quinolones by in vitro activity. LDA and MLR anal. were applied to virtual structures to identify the influence of each atom or substituent of the quinolone ring on anti-Toxoplasma activity. LDA predicted that 20 of the 24 quinolones would be active against T. gondii. This was confirmed in vitro for most of the quinolones. Trovafloxacin, grepafloxacin, gatifloxacin, and moxifloxacin were the quinolones most potent against T. gondii, with IC50s of 0.4, 2.4, 4.1, and 5.1 mg/L, resp. Using MLR anal., a good correlation was found between measured and predicted IC50s (r2 = 0.87, cross-validation r2 = 0.74). MLR anal. showed that the carboxylic group at position C-3 of the quinolone ring was not essential for anti-Toxoplasma activity. In contrast, activity was totally dependent on the presence of a fluorine at position C-6 and was enhanced by the presence of a Me group at C-5 or an azabicyclohexane at C-7. A nucleophilic substituent at C-8 was essential for the activity of gatifloxacin and moxifloxacin.

IT **308353-11-9**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prediction of anti-Toxoplasma activities of 24 quinolones and fluoroquinolones in vitro by mol. topol. and virtual computational techniques)

RN 308353-11-9 HCAPLUS
CN 3-Quinolinecarboxylic acid, 7-(6-amino-3-azabicyclo[3.1.0]hex-3-yl)-1-(2,4-difluorophenyl)-6-fluoro-1,4-dihydro-4-oxo- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2002 ACS

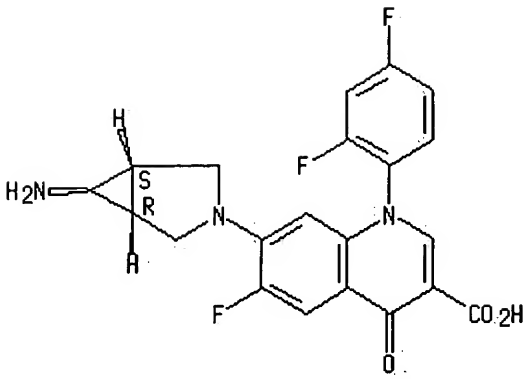
Full Text | Citing References

ACCESSION NUMBER: 1999:434748 HCAPLUS
DOCUMENT NUMBER: 131:193717
TITLE: Anti-Toxoplasma gondii activities and structure-activity relationships of novel fluoroquinolones related to trovafloxacin
AUTHOR(S): Khan, Anis A.; Araujo, Fausto G.; Brighty, Katherine E.; Gootz, Thomas D.; Remington, Jack S.
CORPORATE SOURCE: Department of Immunology and Infectious Diseases, Research Institute, Palo Alto Medical Foundation, Palo Alto, CA, 94301, USA
SOURCE: Antimicrobial Agents and Chemotherapy (1999), 43(7), 1783-1787
CODEN: AMACCQ; ISSN: 0066-4804
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Eleven novel fluoroquinolones closely related to trovafloxacin were evaluated for their in vitro activity against Toxoplasma gondii, and their structure-activity relationships were examd. The 50% inhibitory concn. (IC50) of trovafloxacin against T.gondii was 2.93 μM; the IC50 of the 11 analogs ranged from 0.53 to 14.09 μM. Six analogs had IC50s lower than that of trovafloxacin. Examn. of the structure-activity relationships of the compds. revealed that addn. of a -CH3 at C-5 of the 1,8-naphthyridone ring, at C-2 of the azabicyclohexane ring, or on the -NH2 at the 6 position of the azabicyclohexane ring resulted in a four-to sixfold increase in activity. Moreover, replacement of 2,4-difluorophenyl by cyclopropyl at N-1 of the 1,8-naphthyridone ring increased activity twofold, and moving the -NH2 one atom further away from the azabicyclohexane ring decreased activity. There was no difference between the naphthyridone and quinolone analogs. These results indicate that structure-activity studies of compds. related to drugs active against T. gondii may be useful in producing compds. with more potent activities against the parasite.

IT **146997-66-2**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-Toxoplasma gondii activities and structure-activity relationships of novel fluoroquinolones related to trovafloxacin)
RN 146997-66-2 HCAPLUS
CN 3-Quinolinecarboxylic acid, 7-(6-amino-3-azabicyclo[3.1.0]hex-3-yl)-1-(2,4-difluorophenyl)-6-fluoro-1,4-dihydro-4-oxo-, (1α,5α,6α)-(9CI) (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2002 ACS

Full Text | Citing References

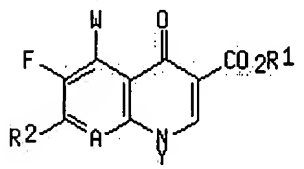
ACCESSION NUMBER: 1993:517227 HCAPLUS
DOCUMENT NUMBER: 119:117227
TITLE: Preparation of azabicycloalkylquinolones and -naphthyridinones as antibacterials
INVENTOR(S): Brighty, Katherine E.
PATENT ASSIGNEE(S): Pfizer Inc., USA
SOURCE: U.S., 42 pp. Cont.-in-part of U.S. Ser. No. 551,212, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5164402	A	19921117	US 1991-650835	19910204
US 5229396	A	19930720	US 1992-919477	19920724
US 5266569	A	19931130	US 1993-12202	19930202
US 5391763	A	19950221	US 1993-88999	19930826

PRIORITY APPLN. INFO.:

US 1990-551212	19900711
US 1991-650835	19910204
US 1992-919477	19920724
US 1993-12202	19930202

OTHER SOURCE(S): MARPAT 119:117227
GI



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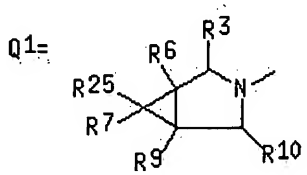
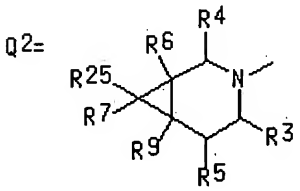
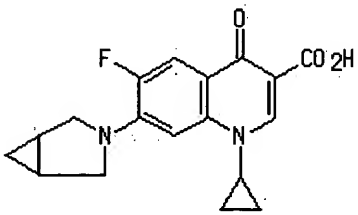






II

AB Title compds. [I; R1 = H, alkyl, pharmaceutically acceptable cation; Y = Et, Me3C, vinyl cyclopropyl, FCH2CH2, 4-FC6H4, 2,4-F2C6H34; W = F, Cl, Br, alkyl, alkoxy, (methyl)amino; A = CH, CCl, C(OMe), CMe, CCN, N; AY = atoms to form a (0-or double bond-contg.) (substituted) 5-6 membered ring; R2 = Q1, Q2; R3, R4, R5, R6, R7, R9 = H, Me, CH2NH2, CH2NHMe, CH2NHEt; R5, R6, R1, R9 may also = NH2, NHMe, NHEt; ≤3 of R3, R4, R6, R7, R9, R10, R25 ≠ H; if 3 of these ≠ H, ≥1 of them = Me], were prepd. as antibacterials (no data). Thus, 3-azabicyclo[3.1.0]hexane hydrochloride was heated with 1-cyclopropyl-6,7-difluoro-1,4-dihydro-4-oxoquinolinecarboxylic acid and Et3N in MgSO to give title compd. II.

IT **146997-67-3P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as antibacterial)

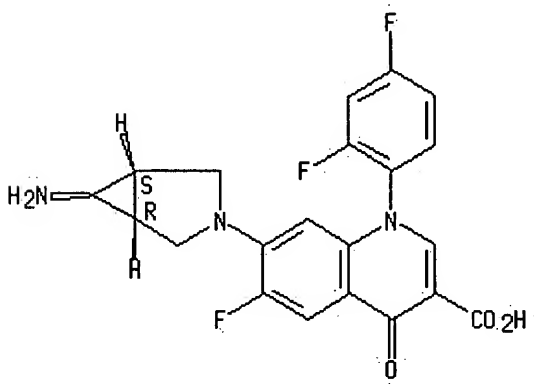
RN 146997-67-3 HCAPLUS

CN 3-Quinolinecarboxylic acid, 7-(6-amino-3-azabicyclo[3.1.0]hex-3-yl)-1-(2,4-difluorophenyl)-6-fluoro-1,4-dihydro-4-oxo-, (1α,5α,6α)-, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

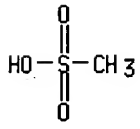
CRN 146997-66-2
CMF C21 H16 F3 N3 O3
CDES *

Relative stereochemistry.



CM 2

CRN 75-75-2
CMF C H4 O3 S



L14 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2002 ACS

Full Text | Citing References

ACCESSION NUMBER: 1991:632216 HCAPLUS
DOCUMENT NUMBER: 115:232216
TITLE: Preparation of 7-(azabicycloalkyl)quinolone- and -naphthyridonecarboxylates as antibacterials
INVENTOR(S): Brighty, Katherine Elizabeth

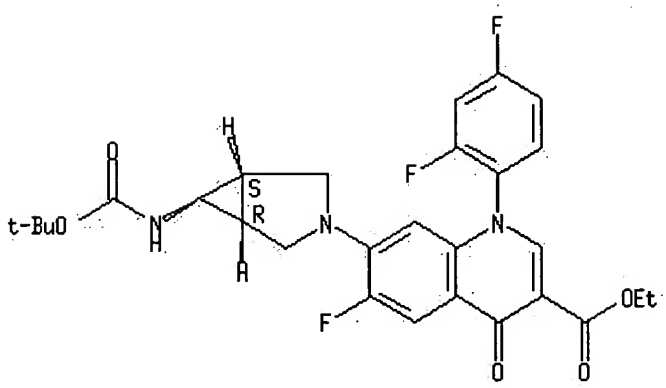
PATENT ASSIGNEE(S): Pfizer Inc., USA
SOURCE: Eur. Pat. Appl., 73 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 413455	A2	19910220	EP 1990-308331	19900730
EP 413455	A3	19911009		
EP 413455	B1	19950621		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
WO 9102526	A1	19910307	WO 1989-US3489	19890816
W: FI, HU, NO, SU, US				
HU 59919	A2	19920728	HU 1992-460	19890816
HU 219403	B	20010428		
RU 2049777	C1	19951210	RU 1989-5011662	19890816
ES 2074131	T3	19950901	ES 1990-308331	19900730
IL 95331	A1	19950731	IL 1990-95331	19900809
CA 2023217	AA	19910217	CA 1990-2023217	19900814
CA 2023217	C	19961210		
PL 166381	B1	19950531	PL 1990-286484	19900814
AU 9061042	A1	19910221	AU 1990-61042	19900815
AU 623801	B2	19920521		
CN 1049501	A	19910227	CN 1990-106794	19900815
CN 1025192	B	19940629		
DD 298399	A5	19920220	DD 1990-343474	19900815
ZA 9006450	A	19920325	ZA 1990-6450	19900815
JP 03086875	A2	19910411	JP 1990-216461	19900816
JP 07002734	B4	19950118		
CZ 281127	B6	19960612	CZ 1990-4027	19900816
NO 9200599	A	19920414	NO 1992-599	19920214
JP 07149758	A2	19950613	JP 1994-157008	19940708
JP 08019099	B4	19960228		
FI 9604520	A	19961111	FI 1996-4520	19961111

PRIORITY APPLN. INFO.: WO 1989-US3489 A 19890816
FI 1992-632 A 19920214

OTHER SOURCE(S): MARPAT 115:232216
GI For diagram(s), see printed CA Issue.
AB Title compds. [I; R1 = H, alkyl, cation; Y = Et, Me3C, H2C:CH cyclopropyl, FCH2CH2, 4-FC6H4, 2,4-F2C6H3; W = H, F, Cl, Br, alkyl, alkoxy, amino, aminomethyl; A = CH, CF, CCl, COMe, CMe, CCN, N; AY = atoms to form a 5- or 6-membered ring, optionally contg. O or a double bond and optionally substituted by Me or :CH2; R2 = (Me-, H2NCH2-, MeNHCH2-, EtNHCH2-, etc. substituted) Q1, Q2], were prepd. as antibacterials (no data). Thus, a mixt. of 3-azabicyclo[3.1.0]hexane hydrochloride, 1-cyclopropyl-6,7-difluoro-1,4-dihydro-4-oxoquinoline-3-carboxylic acid, Et3N, and Me2SO was heated 18 h to give title compd. II.
IT **134575-67-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as intermediate for (azabicycloalkyl)quinolone)
RN 134575-67-0 HCAPLUS
CN 3-Quinolinecarboxylic acid, 1-(2,4-difluorophenyl)-7-[6-[[(1,1-dimethylethoxy)carbonyl]amino]-3-azabicyclo[3.1.0]hex-3-yl]-6-fluoro-1,4-dihydro-4-oxo-, ethyl ester, (1α,5α,6α)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



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FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

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L6 262 S L4 FULL

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L16           0 S L14 AND WINT, L?/AU

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